

### **REMARKS**

As noted in the Advisory Action dated December 7, 2005, Applicants amendments to the claims included inadvertent errors which raised new issues. In response, the present slate of amended claims retains the inadvertently deleted term “adding” and claims 9 and 10 and been canceled.

An addition, the Examiner requests that claims 19 and 22 include the phrase “An isolated”. Applicants have amended claim 19 to include this language. Applicants have taken this opportunity to make it clearer that the expression vector contains the specified sequence.

Applicants do not believe it is necessary to add “An isolated” in to claim 22, in that the claim specifies a cDNA (i.e. not found in nature).

As discussed in the Advisor Action mailed October 28, 2005, upon further review, the Examiner believes that the Amendments to the specification (drawings) and the Claims are not in accord with 37 CFR 1.173(b)(3). The Examiner required Applicants to re-file the amendments according to 37 CFR 1.173(b)(3). As a courtesy, the Examiner kindly called the undersigned attorney to alert him that the Advisory Action was coming. At that time the Examiner explained that:

For the Drawings: The original Drawings should have been included in the Amendment, with brackets around them to indicate that they were to be deleted and the amended drawings should have been submitted with the corrections incorporated, but in “final” format (i.e. not in a marked up format).

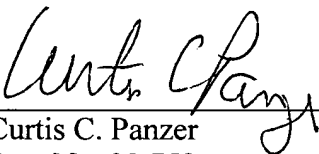
For the Claims: The listing of claims should show how the present slate of claims compares with the claims as they originally issued. Brackets and underlines are to be used. Any claim not in the original patent should be underlined.

Applicants have done attempted to amend the claims as the Examiner requires. In the latest amendment to claims 23-25, “which is shown in” has been replaced with “consisting of”. Previously this amendment was proposed by the Examiner as an Examiner’s amendment. Given the fact that Applicants were required to re-file their previous amendments, the Examiner requested that the Applicants submit the Examiner’s proposed amendment as well.

Finally, Applicants note that recent Office Actions have been sent to our outside counsel, Eugene Rzucidlo at Greenberg Traurig. As shown in the Re-issue Declaration of Assignee, the undersigned attorney (and others at Merck & Co., Inc.) are the attorneys of record. Accordingly, the undersigned attorney requests further communication to be sent to him at the address provided below.

Applicants respectfully submit that the application is now in condition for allowance, and passage thereto is earnestly requested. The Examiner is invited to contact the undersigned attorney at the telephone number provided below if such would advance the prosecution of this application.

Respectfully submitted,

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**Amendments to the Drawings:**

The amendments to the drawings are provided in Appendix 1. Three figures (FIG. 1A, FIG. 1B and FIG. 2B) are being amended. The originally issued versions are shown in brackets to indicate that they are being deleted. Thereafter, the Examiner will find the amended versions.

The amendments are as follows:

In the sixth line of FIG. 1A, the number “90”, has been moved to appear under the 90<sup>th</sup> amino acid.

At the end of FIG. 1B “SEQ ID NO: 10” has been inserted.

At the end of FIG. 2B “SEQ ID NO: 11” has been inserted.

## **APPENDIX 1**

**As shown herein, figures FIG. 1A, FIG. 1B and FIG. 2B are to be deleted. The deleted matter is shown by brackets. A set of amendment (replacement) figures FIG. 1A, FIG. 1B and FIG. 2B, are provided thereafter.**



FIG. 1A

Met Leu Ala Arg Ala Leu Leu Leu Cys Ala Val Leu Ala Leu Ser His  
1 5 10 15  
Thr Ala Asn Pro Cys Cys Ser His Pro Cys Gln Asn Arg Gly Val Cys  
20 25 30  
Met Ser Val Gly Phe Asp Gln Tyr Lys Cys Asp Cys Thr Arg Thr Gly  
35 40 45  
Phe Tyr Gly Glu Asn Cys Ser Thr Pro Glu Phe Leu Thr Arg Ile Lys  
50 55 60  
Leu Phe Leu Lys Pro Thr Pro Asn Thr Val His Tyr Ile Leu Thr His  
65 70 75 80  
Phe Lys Gly Phe Trp Asn Val Val Asn Asn Ile Pro Phe Leu Arg Asn  
85 90 95  
Ala Ile Met Ser Tyr Val Leu Thr Ser Arg Ser His Leu Ile Asp Ser  
100 105 110  
Pro Pro Thr Tyr Asn Ala Asp Tyr Gly Tyr Lys Ser Trp Glu Ala Phe  
115 120 125  
Ser Asn Leu Ser Tyr Tyr Thr Arg Ala Leu Pro Pro Val Pro Asp Asp  
130 135 140  
Cys Pro Thr Pro Leu Gly Val Lys Gly Lys Lys Gln Leu Pro Asp Ser  
145 150 155 160  
Asn Glu Ile Val Glu Lys Leu Leu Leu Arg Arg Lys Phe Ile Pro Asp  
165 170 175  
Pro Gln Gly Ser Asn Met Met Phe Ala Phe Phe Ala Gln His Phe Thr  
180 185 190  
His Gln Phe Phe Lys Thr Asp His Lys Arg Gly Pro Ala Phe Thr Asn  
195 200 205  
Gly Leu Gly His Gly Val Asp Leu Asn His Ile Tyr Gly Glu Thr Leu  
210 215 220  
Ala Arg Gln Arg Lys Leu Arg Leu Phe Lys Asp Gly Lys Met Lys Tyr  
225 230 235 240  
Gln Ile Ile Asp Gly Glu Met Tyr Pro Pro Thr Val Lys Asp Thr Gln  
245 250 255  
Ala Glu Met Ile Tyr Pro Pro Gln Val Pro Glu His Leu Arg Phe Ala  
260 265 270  
Val Gly Gln Glu Val Phe Gly Leu Val Pro Gly Leu Met Met Tyr Ala  
275 280 285  
Thr Ile Trp Leu Arg Glu His Asn Arg Val Cys Asp Val Leu Lys Gln  
290 295 300



FIG. 1B

Glu His Pro Glu Trp Gly Asp Glu Gln Leu Phe Gln Thr Ser Arg Leu  
305 310 315 320

Ile Leu Ile Gly Glu Thr Ile Lys Ile Val Ile Glu Asp Tyr Val Gln  
325 330 335

His Leu Ser Gly Tyr His Phe Lys Leu Lys Phe Asp Pro Glu Leu Leu  
340 345 350

Phe Asn Lys Gln Phe Gln Tyr Gln Asn Arg Ile Ala Ala Glu Phe Asn  
355 360 365

Thr Leu Tyr His Trp His Pro Leu Leu Pro Asp Thr Phe Gln Ile His  
370 375 380

Asp Gln Lys Tyr Asn Tyr Gln Gln Phe Ile Tyr Asn Asn Ser Ile Leu  
385 390 395 400

Leu Glu His Gly Ile Thr Gln Phe Val Glu Ser Phe Thr Arg Gln Ile  
405 410 415

Ala Gly Arg Val Ala Gly Gly Arg Asn Val Pro Pro Ala Val Gln Lys  
420 425 430

Val Ser Gln Ala Ser Ile Asp Gln Ser Arg Gln Met Lys Tyr Gln Ser  
435 440 445

Phe Asn Glu Tyr Arg Lys Arg Phe Met Leu Lys Pro Tyr Glu Ser Phe  
450 455 460

Glu Glu Leu Thr Gly Glu Lys Glu Met Ser Ala Glu Leu Glu Ala Leu  
465 470 475 480

Tyr Gly Asp Ile Asp Ala Val Glu Leu Tyr Pro Ala Leu Leu Val Glu  
485 490 495

Lys Pro Arg Pro Asp Ala Ile Phe Gly Glu Thr Met Val Glu Val Gly  
500 505 510

Ala Pro Phe Ser Leu Lys Gly Leu Met Gly Asn Val Ile Cys Ser Pro  
515 520 525

Ala Tyr Trp Lys Pro Ser Thr Phe Gly Gly Glu Val Gly Phe Gln Ile  
530 535 540

Ile Asn Thr Ala Ser Ile Gln Ser Leu Ile Cys Asn Asn Val Lys Gly  
545 550 555 560

Cys Pro Phe Thr Ser Phe Ser Val Pro Asp Pro Glu Leu Ile Lys Thr  
565 570 575

Val Thr Ile Asn Ala Ser Ser Ser Arg Ser Gly Leu Asp Asp Ile Asn  
580 585 590

Pro Thr Val Leu Leu Lys Glu Arg Ser Thr Glu Leu  
595 600

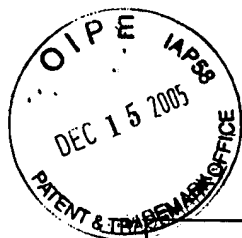


FIG. 2B

CTCAATTCAG TCTCTCATCT GCAATAACGT GAAGGGCTGT CCCTTTACTT CATTCAAGTGT 1800  
TCCAGATCCA GAGCTCATTA AAACAGTCAC CATCAATGCA AGTTCTTCCC GCTCCGGACT 1860  
AGATGATATC AATCCACAG TACTACTAAA AGAACGGTCG ACTGAACTGT AGAAGTCTA 1920  
TGATCATATT TATTTATTTA TATGAACCAT GTCTATTAAT TTAATTATTT AATAATATTT 1980  
ATATTAACT CCTTATGTGA CTTAACATCT TCTGTAACAG AAGTCAGTAC TCCTGTTGCG 2040  
GAGAAAGGAG TCATACTTGT GAAGACTTTT ATGTCACTAC TCTAAAGATT TTGCTGTTGC 2100  
TGTTAAGTTT GGAAAACAGT TTTTATTCTG TTTTATAAAC CAGAGAGAAA TGAGTTTGA 2160  
CGTCTTTTGA CTGGAATTC AACTTATATT ATAAGGACGA AAGTAAAGAT GTTTGAATAC 2220  
TTAAACACTA TCACAAGATG CCAAAATGCT GAAAGTTTTT AACTGTTCGA TGTTCCAAT 2280  
GCATCTTCCA TGATGCATTA GAAGTAACTA ATGTTTGAAA TTTTAAAGTA CTTTTGGGTA 2340  
TTTTCTGTC ATCAAACAAA ACAGGTATCA GTGCATTATT AAATGAATAT TTAAATTAGA 2400  
CATTACCAGT AATTTCATGT CTACTTTTGA AAATCAGCAA TGAAACAATA ATTTGAAATT 2460  
TCTAAATTCA TAGGGTAGAA TCACCTGTAA AAGCTTGTTT GATTTCTTAA AGTTATTAAA 2520  
CTTGACATA TACCAAAAAAG AAGCTGTCTT GGATTTAAAT CTGTAAAAATC AGATGAAATT 2580  
TTACTACAAT TGCTTGTTAA AATATTTTAT AAGTGATGTT CCTTTTTCAC CAAGAGTATA 2640  
AACCTTTTGA GTGTGACTGT TAAACTTCC TTTTAAATCA AAATGCCAAA TTTATTAAGG 2700  
TGGTGGAGCC ACTGCAGTGT TATCTCAAAA TAAGAATATC CTGTTGAGAT ATTCCAGAAT 2760  
CTGTTTATAT GGCTGGTAAC ATGTAAAAAC CCCATAACCC CGCCAAAAGG GGTCTACCC 2820  
TTGAACATAA AGCAATAACC AAAGGAGAAA AGCCCAAATT ATTGGTTCCA AATTTAGGGT 2880  
TTAAACTTTT TGAAGCAAAC TTTTTTTTAG CCTGTGTCAC TGCAGACCTG GACTCAGAT 2940  
TTTGCTATGA GGTTAATGAA GTACCAAGCT GTGCTTGAAT AACGATATGT TTTCTCAGAT 3000  
TTTCTGTTGT ACAGTTTAAAT TTAGCAGTCC ATATCACATT GCAAAAGTAG CAATGACCTC 3060  
ATAAAATACC TCTTCAAAAT GCTTAAATTC ATTTACACA TTAATTTTAT CTCAGTCTTG 3120  
AAGCCAATTC AGTAGGTGCA TTGGAATCAA GCCTGGCTAC CTGCATGCTG TTCCTTTTCT 3180  
TTTCTTCTTT TAGCCATTTT GCTAAGAGAC ACAGTCTTCT CAAACACTTC GTTCTCCTA 3240  
TTTTGTTTTA CTAGTTTTAA GATCAGAGTT CACTTCTTTT GGACTCTGCC TATATTTTCT 3300  
TACCTGAACT TTGCAAGTT TTCAGGTAAA CCTCAGCTCA GGACTGCTAT TTAGCTCCTC 3360  
TTAAGAAGAT TAAAAAAGG 3387